

## CONTENTS OF VOLUME 80

### No. 1, April 1990

<i>J. W. Anderson, I. R. Sarda and D. B. Jennings (Canada):</i> Acute changes in osmolality and renin and respiratory control of arterial $P_{CO_2}$ and $[H^+]$	1
<i>S. Schürch, P. Gehr, V. Im Hof, M. Geiser and F. Green (Canada, Switzerland):</i> Surfactant displaces particles toward the epithelium in airways and alveoli	17
<i>S. A. Shea, R. L. Horner, G. Benchetrit and A. Guz (U.K., France):</i> The persistence of a respiratory 'personality' into Stage IV sleep in man	33
<i>T. Chonan, M. Adams, C. von Euler and N. S. Cherniack (U.S.A.):</i> Effects of focal cooling in the ventrolateral medulla on chemoresponsiveness in dogs	45
<i>R. L. Martin and J. D. Sinclair (New Zealand):</i> Kainic acid on the rat ventral medullary surface depresses hypoxic and hypercapnic ventilatory responses	55
<i>R. Harding and G. A. Wood (Australia):</i> The role of carotid bodies in the establishment of oral breathing during nasal obstruction in lambs and ewes	71
<i>S. C. Scott, J. D. G. Inman and I. R. Moss (U.S.A.):</i> Ontogeny of sleep/wake and cardiorespiratory behavior in unanesthetized piglets	83
<i>Y. Cormier and F. Sériès (Canada):</i> Effects of lung volume and positive airway pressure on collateral resistance	103

### Nos. 2,3, May/June 1990

<i>P. E. di Prampero and G. Ferretti (Italy, Switzerland):</i> Factors limiting maximal oxygen consumption in humans	113
<i>J. Piiper (F.R.G.):</i> Unequal distribution of blood flow in exercising muscle of the dog	129
<i>H. Hoppeler (Switzerland):</i> The different relationship of $\dot{V}_{O_2}$ max to muscle mitochondria in humans and quadrupedal animals	137
<i>J. T. Reeves, B. M. Groves, A. Cymerman, J. R. Sutton, P. D. Wagner, D. Turkevich and C. S. Houston (U.S.A., Canada):</i> Operation Everest II: cardiac filling pressures during cycle exercise at sea level	147
<i>P. Dejourns (France):</i> Comparative aspects of maximal oxygen consumption	155
<i>H. Shams, F. L. Powell and S. C. Hempleman (U.S.A.):</i> Effects of normobaric and hypobaric hypoxia on ventilation and arterial blood gases in ducks	163
<i>I. Šipinková, G. Hahn, A. Hillebrecht, M. Meyer and J. Piiper (F.R.G.):</i> Expirograms of $O_2H_2$ , $CO_2$ and intravenously infused $C_2H_2$ and Freon-22 during panting in dogs	171
<i>T. Kobayashi, A. Shido, K. Nitta, S. Inui, M. Ganzuka and B. Robertson (Japan, Sweden):</i> The critical concentration of surfactant in fetal lung liquid at birth	181
<i>A. Mier, C. Brophy, J. Moxham and M. Green (U.K.):</i> Influence of lung volume and rib cage configuration on transdiaphragmatic pressure during phrenic nerve stimulation in man	193
<i>J. A. Orr, M. Ernst, J. Carrihers and H. W. Shirer (U.S.A.):</i> Cardiopulmonary responses to HCl infusion are mediated by thromboxane $A_2$ but not by serotonin	203
<i>M. Estenne, G. Farkas and A. De Troyer (Belgium):</i> Respiratory changes in abdominal configuration is supine dogs	219

<i>L. K. Brown, J. Schwartz, A. Miller, M. Pilipski and A. S. Teirstein (U.S.A.):</i> Respiratory drive and pattern during intertially-loaded CO <sub>2</sub> rebreathing: implications for models of respiratory mechanics in obesity	231
<i>D. S. Bacon, M. S. Afifi, J. A. Griebel and E. M. Camporesi (U.S.A.):</i> Cerebrocortical oxygenation and ventilatory response during sustained hypoxia	245
<i>M. S. Graham, J. D. Turner and C. M. Wood (Canada):</i> Control of ventilation in the hypercapnic skate <i>Raja ocellata</i> : I. Blood and extradural fluid	259
<i>C. M. Wood, J. D. Turner, R. S. Munger and M. S. Graham (Canada):</i> Control of ventilation in the hypercapnic skate <i>Raja ocellata</i> : II. Cerebrospinal fluid and intracellular pH in the brain and other tissues	279
<i>M. Runold, N. S. Cherniack and N. R. Prabhakar (U.S.A., Sweden):</i> Effect of adenosine on chemosensory activity of the cat aortic body	299
<i>S. L. Thompson-Gorman, R. S. Fitzgerald and W. Mitzner (U.S.A.):</i> The role of chemical (CO <sub>2</sub> ) drive in the apnea induced by high frequency ventilation in the cat	307
<i>A. J. Arp, M. L. Doyle, E. Di Cera and S. J. Gill (U.S.A.):</i> Oxygenation properties of the two co-occurring hemoglobins of the tube worm <i>Riftia pachyptila</i>	323
<i>B. L. Tufts and R. G. Boutilier (Canada):</i> CO <sub>2</sub> transport in agnathan blood: evidence of erythrocyte Cl <sup>-</sup> /HCO <sub>3</sub> <sup>-</sup> exchange limitations	335
Author Index	349
Subject Index	351
Contents of Volume 80	361

